



JPW
1743

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
(Case No. 95,1408-GGG)

PATENT

In application of:

Kellogg *et al.*

Serial No. 09/858,318

Filed: May 15, 2001

For: Microfluidics Devices and Methods for
High Throughput Screening

Before the Examiner:
L. Cross

Group Art Unit: 1743

TRANSMITTAL LETTER

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

In regard to the above-identified application:

1. We are transmitting herewith the attached
 - a. Request to Rescind Abandonment
 - b. Copy of Response to Office Action
 - c. Copy of Notice of Abandonment
 - d. Copy of Return Postcard
2. With respect to additional fees:
 - a. No additional fee is required.
3. Please charge any deficiency or credit any overpayment to Deposit Account No. 13-2490.
4. CERTIFICATE UNDER 37 C.F.R. 1.8: The undersigned hereby certifies that this Transmittal Letter and this paper, as described in paragraph 1 herein above, are being sent by U.S. Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450 on this 31st day of January 2005.

By:

Kevin E. Noonan, Ph.D.
Reg No. 35,303



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
(Case No. 95,1408-GGG)

PATENT

In application of:)	
)	
Kellogg <i>et al.</i>)	Before the Examiner:
)	L. Cross
Serial No. 09/858,318)	
)	Group Art Unit: 1743
Filed: May 15, 2001)	
)	
For: Microfluidics Devices and Methods for)	
High Throughput Screening)	

REQUEST TO RESCIND ABANDONMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Dear Sir:

Applicants respectfully request that the Notice of Abandonment, mailed January 26, 2005 (Exhibit A), be withdrawn. The Notice asserts that the application became abandoned for failure to file a response when in fact a response was timely filed.

Applicants submit herewith copies of their response and Petition for Extension of Time¹ (Exhibit B), as well as their return postcard stamped with the Patent and Trademark Office mailroom stamp (Exhibit C). Applicants undersigned representative filed this response with a Certificate of Mailing attesting that the response was deposited with the U.S. Postal Service on January 13, 2005. Applicants' return postcard also indicates that the response was mailed January 13, 2005, and the PTO mailroom stamp indicates that the response was received January 18, 2005.

¹ Applicants note for the record that through an inadvertent typographical error their Petition indicates that a two-month extension, rather than the correct three-month extension, was requested in their petition. However, Applicants respectfully submit that this application falls within the provisions of 37 C.F.R. §1.136(a)(3) because their transmittal letter authorized the Patent and Trademark Office to charge all deficiencies in any fees to their representative's Deposit Account.

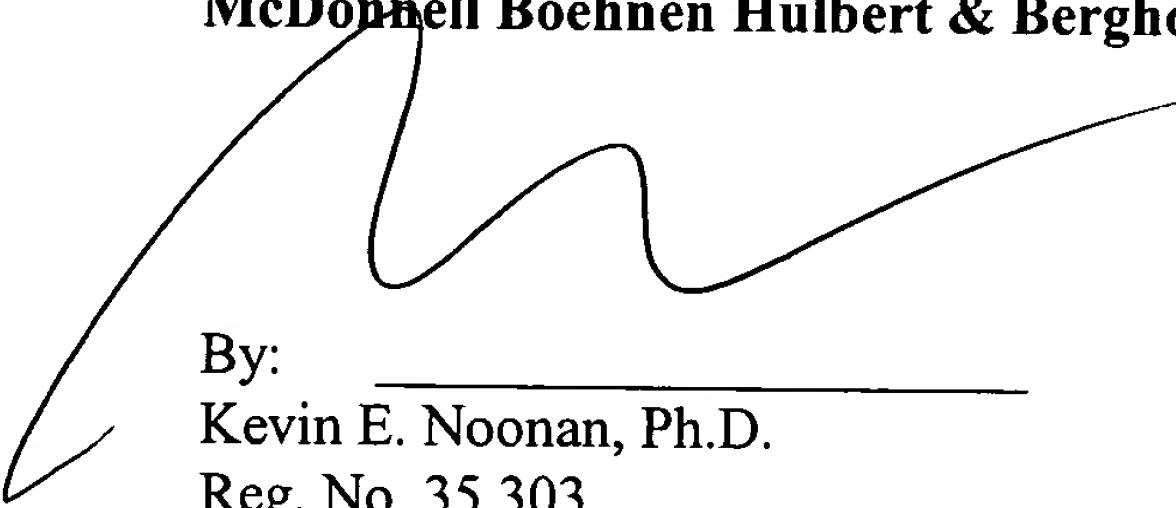
Applicants respectfully submit that the evidence of record establishes that the Notice of Abandonment was issued in error, and thus respectfully request that the Patent and Trademark Office rescind the notice, enter their response and proceed with reconsideration of the pending claims in view of Applicants' amendments and remarks contained in their response.

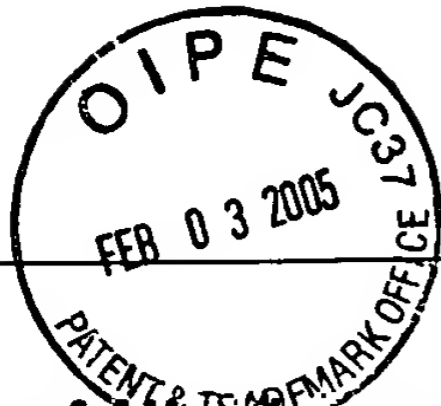
If, for any reason, the U.S. Patent and Trademark Office determines that this application was properly abandoned, then Applicants request that this paper be considered a Petition to Withdraw Abandonment of an Unintentionally Abandoned Application, and are authorized to charge Deposit Account 13-2490 for the full amount of the required fee. Applicants by their undersigned attorney attest that this application was became abandoned unintentionally, and that no undue delay was occasioned in their filing this paper to have the abandonment withdrawn.

If Examiner Cross believes it to be helpful, she is invited to contact the undersigned by telephone at (312) 913-0001.

Respectfully submitted,
McDonnell Boehnen Hulbert & Berghoff

Date: January 31, 2005

By: 
Kevin E. Noonan, Ph.D.
Reg. No. 35,303



Notice of Abandonment

Application No.

09/858,318

Examiner

LaToya I. Cross

Applicant(s)

KELLOGG ET AL.


Art Unit

1743

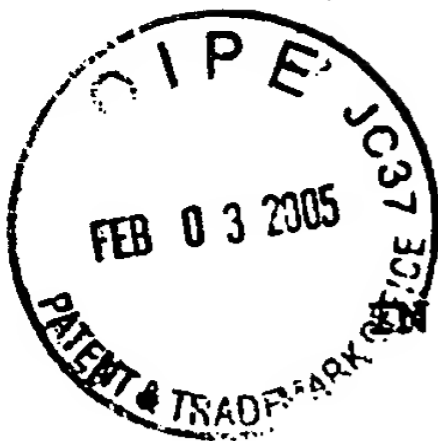
-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

This application is abandoned in view of:

1. ☒ Applicant's failure to timely file a proper reply to the Office letter mailed on 12 July 2004.
 - (a) ☐ A reply was received on _____ (with a Certificate of Mailing or Transmission dated _____), which is after the expiration of the period for reply (including a total extension of time of _____ month(s)) which expired on _____.
 - (b) ☐ A proposed reply was received on _____, but it does not constitute a proper reply under 37 CFR 1.113 (a) to the final rejection.
(A proper reply under 37 CFR 1.113 to a final rejection consists only of: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114).
 - (c) ☐ A reply was received on _____ but it does not constitute a proper reply, or a bona fide attempt at a proper reply, to the non-final rejection. See 37 CFR 1.85(a) and 1.111. (See explanation in box 7 below).
 - (d) ☒ No reply has been received.
2. ☐ Applicant's failure to timely pay the required issue fee and publication fee, if applicable, within the statutory period of three months from the mailing date of the Notice of Allowance (PTOL-85).
 - (a) ☐ The issue fee and publication fee, if applicable, was received on _____ (with a Certificate of Mailing or Transmission dated _____), which is after the expiration of the statutory period for payment of the issue fee (and publication fee) set in the Notice of Allowance (PTOL-85).
 - (b) ☐ The submitted fee of \$_____ is insufficient. A balance of \$_____ is due.
The issue fee required by 37 CFR 1.18 is \$_____. The publication fee, if required by 37 CFR 1.18(d), is \$_____.
 - (c) ☐ The issue fee and publication fee, if applicable, has not been received.
3. ☐ Applicant's failure to timely file corrected drawings as required by, and within the three-month period set in, the Notice of Allowability (PTO-37).
 - (a) ☐ Proposed corrected drawings were received on _____ (with a Certificate of Mailing or Transmission dated _____), which is after the expiration of the period for reply.
 - (b) ☐ No corrected drawings have been received.
4. ☐ The letter of express abandonment which is signed by the attorney or agent of record, the assignee of the entire interest, or all of the applicants.
5. ☐ The letter of express abandonment which is signed by an attorney or agent (acting in a representative capacity under 37 CFR 1.34(a)) upon the filing of a continuing application.
6. ☐ The decision by the Board of Patent Appeals and Interference rendered on _____ and because the period for seeking court review of the decision has expired and there are no allowed claims.
7. ☐ The reason(s) below:


Jili Warden
Supervisory Patent Examiner
Technology Center 1700

Petitions to revive under 37 CFR 1.137(a) or (b), or requests to withdraw the holding of abandonment under 37 CFR 1.181, should be promptly filed to minimize any negative effects on patent term.



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
(Case No. 95,1408-GGG)

PATENT

In application of:

Kellogg et al.

Serial No.: 09/858,318

Filed: May 15, 2001

For: Microfluidics Devices and Methods)
For High Throughput Screening)

)
)
) Before the Examiner:
) L. Cross
)

)
) Group Art Unit: 1743
)

TRANSMITTAL LETTER

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

In regard to the above-identified application:

1. We are transmitting herewith the attached
 - a. Response to Official Action
 - b. Petition for Extension of Time
2. With respect to additional fees:
 - a. An additional fee of \$950.00 is required.
3. Please charge the full amount due, or credit any overpayment, to Deposit Account No. **13-2490**. A duplicate copy of this sheet is enclosed.
4. CERTIFICATE UNDER 37 C.F.R. 1.10: The undersigned hereby certifies that this Transmittal Letter and this paper, as described in paragraph 1 herein above, are being deposited with the United States Postal Service, as first class mail, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450 on this 13th day of January 2005.

By: 

Kevin E. Noonan, Ph.D.
Reg No. 35,303



THE UNITED STATES PATENT AND TRADEMARK OFFICE
(Case No. 95,1408-GGG)

PATENT

In application of:

Kellogg et al.

Serial No.: 09/858,318

Filed: May 15, 2001

For: Microfluidics Devices and Methods)
For High Throughput Screening)

)
)
) Before the Examiner:
) L. Cross
)

)
) Group Art Unit: 1743
)

PETITION FOR EXTENSION OF TIME

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

Applicants request a Two-Month Extension of Time to respond to the Official Action mailed July 13, 2004. Their Response will therefore be due on January 13, 2005.

By the signature of the undersigned the Patent and Trademark Office is authorized to charge Deposit Account 13-2490 for the full amount of the required fee.

Respectfully submitted,
McDonnell Boehnen Hulbert & Berghoff

By: 

Kevin E. Noonan, Ph.D.
Reg. No. 35,303

Dated: January 13, 2005

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
(Case No. 95,1408-GGG)

PATENT

In application of:)	
)	
Kellogg et al.)	Before the Examiner:
)	L. Cross
)	
Serial No.: 09/858,318)	
)	Group Art Unit: 1743
Filed: May 15, 2001)	
)	
For: Microfluidics Devices and)	
Methods for High Throughput)	
Screening)	

RESPONSE TO OFFICE ACTION MAILED JULY 13, 2004

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Responsive to the Office Action, mailed July 13, 2001,
Applicants respectfully request reconsideration of the above-
identified application in view of the following remarks.

Status of the claims.

The Examiner indicated that claims 1-24 and 33-41 are
pending at the issuance of this Office Action.

AMENDMENTS

Applicants request that the Examiner enter the following amendments:

1. (Original) A centripetally-motivated microsystems platform comprising:

- a) a rotatable platform comprising a substrate having a surface comprising a multiplicity of microfluidics structures embedded in the surface of the platform, wherein each microfluidics structure comprises

- i) one or a plurality of aliquotted reagent reservoirs,

- a. one or a plurality of sample reservoirs,

- b. one or a plurality of detection reservoirs

wherein each of said sample reservoir and aliquotted reagent reservoir is fluidly connected to at least one of the plurality of detection reservoirs through a microchannel, and wherein the platform further comprises

- b) one or a plurality of bulk reagent reservoirs,

- c) a reagent overflow reservoir and

- d) a reagent aliquotting manifold comprising a microchannel positioned radially across the surface of the platform,

wherein the aliquotting manifold is fluidly connected to each of the plurality of aliquotted reagent reservoirs and the manifold is further fluidly connected to the overflow reservoir, and wherein fluid within the microchannels of the platform is moved through said microchannels by centripetal force arising from rotational motion of the platform for a time and a rotational velocity sufficient to move the fluid through the microchannels, the platform further comprising

e) a mixing microchannel, wherein each mixing microchannel is fluidly connected to a sample reservoir and one or a plurality of aliquotted reagent reservoirs by a microchannel, wherein the mixing microchannel defines a longitudinal path in the surface of the platform having a length sufficient to mix the sample solution and the reagent solutions to a homogenous mixture.

2. (Original) A microsystem platform of claim 1 wherein each sample reservoir further comprises a sample input port.

3. (Original) A microsystem platform of claim 1 wherein each bulk reagent reservoir further comprises a reagent input port.

4. (Original) A microsystem platform of claim 1 wherein the detection reservoirs are optically transparent.

5. (Original) A microsystem platform of claim 1 wherein each sample reservoir has a volumetric capacity of from about 1nL to about 500 μ L.

6. (Original) A microsystem platform of claim 1 wherein each reagent reservoir has a volumetric capacity of from about 1nL to about 500 μ L.

7. (Original) A microsystem platform of claim 1 wherein each detection reservoir has a volumetric capacity of from about 2nL to about 1000 μ L.

8. (Cancelled)

9. (Original) A microsystem platform of claim [[8]] 1 wherein each mixing microchannel comprises a plurality of bends having angles greater than 90°.

10. (Original) A microsystem platform of claim 1 comprising from about 24 to about 10,000 microfluidics structures.

11. (Original) A microsystem platform of claim 1 wherein rotation of the platform motivates fluid through each of the microfluidics structures at a flow rate wherein the time the fluid is in the mixing microchannel is substantially the same in each of the microfluidics structures on the platform.

12. (Original) A microsystem platform of claim 11 wherein the flow rate of fluid through each of the microfluidics structures is from about 1nL/s to about 100μL/s.

13. (Original) A microsystem platform of claim 11 wherein the flow rate of fluid through each of the microfluidics structure is from about 0.1nL/s to about 500μL/s.

14. (Original) A microsystem platform of claim 1 that is a circular disk.

15. (Original) The microsystem platform of Claim 1, wherein the microsystem platform is constructed of a material selected from the group consisting of an organic material, an inorganic material, a crystalline material and an amorphous material.

16. (Original) The microsystem platform of Claim 15, wherein the microsystem platform further comprises a material selected from the group consisting of silicon, silica, quartz, a ceramic,

a metal or a plastic.

17. (Original) The microsystem platform of Claim 14, wherein the microsystem platform is a circular disk having a radius of about 1 to about 25cm.

18. (Original) The microsystem platform of Claim 1, wherein the microsystem platform has a thickness of about 0.1 to 100mm, and wherein the cross-sectional dimension of the microchannels embedded therein is less than 1mm and from 1 to 90 percent of said cross-sectional dimension of the platform.

19. (Original) The microsystem platform of Claim 1, wherein the microsystem platform further comprises a multiplicity of air channels, exhaust air ports and air displacement channels.

20. (Original) The microsystem platform of Claim 1, comprising a first layer and a second layer, wherein the first layer comprises sample reservoirs, bulk reagent reservoirs, aliquotted reagent reservoirs, reagent aliquotting manifold and detection reservoirs, and the second layer comprises microchannels and mixing microchannels, wherein the sample reservoirs, bulk reagent reservoirs, aliquotted reagent reservoirs, reagent aliquotting manifold and detection reservoirs in the first layer are fluidly connected by the microchannels and mixing microchannels in the second layer when the first layer is in contact with the second layer.

21. (Original) The microsystem platform of claim1, wherein the reagent aliquotting manifold is fluidly connected to each of the alliquotted reagent reservoirs by a microchannel having a capillary junction between the microchannel and the aliquotted

reagent reservoir, and wherein the capillary junction is further connected to an air displacement channel connected to an air vent open to a surface of the platform.

22. (Original) The microsystems platform of claim 21, wherein the reagent aliquotting manifold is further fluidly connected to an overflow reservoir comprising a capillary junction, wherein rotation of the platform at a speed sufficient to overcome said capillary junction and achieve fluid flow into the overflow reservoir produces a bubble of air at the capillary junction between the microchannel connecting the reagent aliquotting manifold and the aliquotted reagent reservoir, thereby preventing fluid flow into said aliquotted reagent reservoir.

23. (Original) The microsystem platform of claim 2 comprising a plurality of sample reservoirs each having a sample input port, wherein the plurality of sample input ports are arranged on the surface of the platform to be adapted to the conformation of a robotic or automated pipettor.

24. (Original) A centripetally-motivated fluid micromanipulation apparatus that is a combination of
a microsystem platform according to claim 1, and
a micromanipulation device, comprising a base, a rotating means, a power supply and user interface and operations controlling means, wherein the rotating means is operatively linked to the microsystem platform and in rotational contact therewith

wherein a volume of a fluid within the microchannels of the platform is moved through said microchannels by centripetal force arising from rotational motion of the platform for a time

and a rotational velocity sufficient to move the fluid through the microchannels.

25-31. (Canceled)

32. (Original) A method for homogenously mixing a sample and one or a plurality of reagents, comprising the steps of:

- a) applying a volume of a fluid comprising a biological sample to one or a plurality of sample reservoirs of a microsystem platform of claim 1 when the platform is stationary, wherein the biological sample applied to each sample reservoir is the same or different;
- b) applying a volume of a solution comprising a reagent to a bulk reagent reservoir of a microsystem platform of claim 1 when the platform is stationary;
- c) rotating the platform at a first rotational speed sufficient to motivate fluid flow from the bulk reagent reservoir into the reagent aliquotting manifold of a microsystem platform of claim 1 and delivering an amount of reagent into each of a plurality of aliquotted reagent reservoirs
- d) rotating the platform at a second rotational speed sufficient to motivate fluid flow from each sample reservoir and one or a plurality of reagent reservoirs into a mixing microchannel, wherein the platform is rotated for a time sufficient for the sample volume and reagent volume to traverse the mixing microchannel and be homogeneously mixed;
- e) delivering the mixture of the homogeneous mixture of the sample volume and reagent volume to a detection reservoir; and

f) detecting the homogenous mixture or reaction product produced therein.

33. (Original) A method according to claim 32, wherein a component of the biological sample reacts with one or a plurality of reagents in the homogeneous mixture.

34. (Original) A method according to claim 33, wherein a component of the biological sample reacts with one or a plurality of reagents in the homogeneous mixture to form a reaction product, and the reaction product is detected.

35. (Original) A method according to claim 32, wherein the biological sample comprises an enzymatic species.

36. (Original) A method for performing a biological or biochemical reaction, comprising the steps of:

- a) applying a volume of a fluid comprising a biological sample to one or a plurality of sample reservoirs of a microsystem platform of claim 1 when the platform is stationary, wherein the biological sample applied to each sample reservoir is the same or different and wherein the biological sample comprises one component of the biological or biochemical reaction;
- b) applying a volume of a solution comprising a reagent to a bulk reagent reservoir of a microsystem platform of claim 1 when the platform is stationary, wherein one or a plurality of reagents comprises another component of the biological or biochemical reaction;

- c) rotating the platform at a first rotational speed sufficient to motivate fluid flow from the bulk reagent reservoir into the reagent aliquotting manifold of a microsystem platform of claim 1 and delivering an amount of reagent into each of a plurality of aliquotted reagent reservoirs
- d) rotating the platform at a second rotational speed sufficient to motivate fluid flow from each sample reservoir and one or a plurality of reagent reservoirs into a mixing microchannel, wherein the platform is rotated for a time sufficient for the sample volume and reagent volume to traverse the mixing microchannel and be homogeneously mixed;
- e) delivering the mixture of the homogeneous mixture of the sample volume and reagent volume to a detection reservoir, and
- f) detecting a product of the biological or biochemical reaction.

37. (Original) A method according to claim 36, wherein the biological sample comprises an enzymatic species.

38. (Original) A microsystem platform of claim 23, wherein the sample input ports are arranged in the surface of the platform in a rectangular pattern having a spacing that is adapted for an 8-tip linear or 96-tip rectangular pipetting device.

39. (Original) A microsystem platform of claim 38, wherein the sample input ports are arranged in the surface of the platform having a space of 9mm, 4.5mm or 2.25mm between individual entry ports.

40. (Original) A microsystem platform of claim 23, wherein the sample input ports are arranged in the surface of the platform in a rectangular pattern of 8 x 12, 16 x 24 or 32 x 48 elements.

41. (Original) A centripetally-motivated microsystems platform comprising:

- a rotatable platform comprising a substrate having a surface comprising a one or a multiplicity of microfluidics structures embedded in the surface of the platform, wherein each microfluidics structure comprises

- a plurality of cell culture chambers, and
 - one or a plurality of overflow reservoirs
 - at least two reagent reservoirs and
 - a branching dilution microchannel comprising a multiplicity of branches fluidly connected to capillary junctions

wherein each of said cell culture chambers is fluidly connected to at least one of the reagent reservoirs through the branching dilution microchannel and wherein the branching dilution microchannel is fluidly connected to each of the reagent reservoirs,

wherein fluid within the branching dilution microchannel is moved through said microchannel by centripetal force arising from rotational motion of the platform for a time and a rotational velocity sufficient to move the fluid through the microchannel and wherein a portion of the fluid flow from each of the reagent reservoirs flow directly through the branched dilution microchannel into each of the cell culture chambers, and wherein a portion of the fluid flow through the branching dilution

microchannel flows through each of the capillary junctions into a separate branch of the branching dilution microchannel, wherein each branch of the branching dilution microchannel is fluidly connected to one cell culture chamber and each branch contains a mixture of fluid from each of the reagent reservoirs in different proportions of the fluids.

REMARKS

Claims 1 - 24 and 33 - 41 are pending and claims 25 - 32 are canceled. The rejections set forth in the Office Action have been overcome by amendment or are traversed by argument below.

Applicants acknowledge that the Examiner does not have the Brody reference, although they believe that the reference was submitted. Applicants will duly resubmit the reference after having obtained another copy.

Applicants thank the Examiner for her helpful comments regarding claim dependency, and have amended the pending claims in compliance therewith.

1. The pending claims are not anticipated by the cited prior art

The pending claims stand rejected under 35 U.S.C. §102(b) as being anticipated by European Patent application, Publication No. EP 0608006 to Abaxis, Inc. Applicants have amended independent claim 1 to incorporate the limitation of cancelled claim 8, wherein the platform comprises a mixing microchannel and wherein the mixing microchannel defines a longitudinal path in the surface of the platform having a length sufficient to mix the sample solution and the reagent solutions to a homogenous mixture. Applicants respectfully contend that a mixing microchannel is not disclosed in the cited art; indeed, the only mention of a component for mixing is found at col. 3, lines 54-56, where it is taught that the sample chamber can be a mixing chamber. Applicants respectfully contend that this identify of the mixing chamber taught by the '006 EP application as a specialized type of separation chamber is structurally distinct from the mixing microchannel disclosed in their specification, which is defined explicitly as:

Mixing microchannels are configured to provide mixing of different solutions as the mixture traverses the longitudinal extent of the microchannel. The degree of mixing is dependent on the flow rate of the fluids and the

longitudinal extent of the mixing microchannel, which is proportional to the amount of time the two fluids are in contact and are mixed together. The degree of mixing is also dependent on the lateral extent of the mixing microchannel, and is further dependent on the diffusion constants of the fluids to be mixed. In order to accommodate mixing microchannels having sufficient lengths for mixing fluids having a useful range of viscosities, the mixing microchannels are provided as shown in Figure 5b, wherein mixing is promoted as illustrated in Figure 5b by configuring the microchannel to bend several times as it traverses a path on the platform surface that is perpendicular to the direction of rotation, but extends radially on the surface of the platform from a position more proximal to a position more distal to the axis of rotation. Mixing microchannel 509 has a length of from about 1mm to about 100mm, its length in some cases achieved through the use of bends. Mixing microchannel 509 is provided with a capillary junction of a restriction in the lateral dimension at 510 wherein the interior diameter of the microchannel is reduced by about 0 to 95%, and then joins capillary junction 511. Capillary junction 511 is larger in the lateral or vertical direction or both than the restriction 510.

(page 25, line 23 through page 26, line 8).

For all these reasons, the reference does not teach each and every element of the instantly-claimed invention and cannot anticipate the pending claims under 35 U.S.C. § 102(b).

Applicants thus respectfully request that this ground of rejection be withdrawn.

2. The pending claims are not rendered obvious by the cited prior art

Claims 1-24 and 33 - 41 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,582,662 (Kellogg '662) in view of U.S. Patent 6,063,589 (Kellogg '589).

Applicants respectfully traverse this ground of rejection with the following argument.

Applicants respectfully inform the Examiner that the Kellogg '662 and Kellogg '589 patents are and have been co-owned at all times during their pendency and to date. The Kellogg '662 and Kellogg '589 patents were originally owned by Gamera Biosciences Corporation, from which the current real party in interest, Tecan Trading AG, acquired all right, title and interest. As a consequence, therefore, the Kellogg '662 and Kellogg '589 patents are commonly-owned with the instant application, and are thus unavailable as prior art to support the asserted rejection on §103 grounds. MPEP § 706.02(1)(1). Thus, the Action fails to set out a *prima facie* case of obviousness.

Applicants thus respectfully contend that rejection under 35 U.S.C. §103 is not supported by the cited art, and request that the Examiner withdraw these grounds of rejection.

3. Applicants acknowledge the asserted rejections based on obviousness-type double patenting

Claims 1 - 24 and 33 - 41 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims U.S. Patent No. 6,582,662 (Kellogg et al.) in view of U.S. Patent No. 6,063,589 (Kellogg et al). In addition, claims 1 - 23 stand provisionally rejected under obviousness-type double patenting as being unpatentable over co-pending Application No. 10/746,821 in view of U.S. Patent 6,063,589 (Kellogg et al). Finally, claim,s 37 and 38 stand

rejected under obviousness-type double patenting as being unpatentable over claims 1 and 2 of co-owned U.S. Patent No. 6,709,869 to Mian et al. in view of U.S. Patent 6,063,589 (Kellogg et al). Applicant acknowledges these double patenting rejections and defers filing a terminal disclaimer until other patentability issues are resolved.

CONCLUSIONS

Applicants believe that all grounds of rejection have been overcome by amendment, and request that the pending claims be passed to issue.

If Examiner Cross believes it to be helpful, the Examiner is invited to contact the undersigned representative by telephone at (312) 913-0001.

Respectfully submitted,
McDonnell Boehnen Hulbert & Berghoff

By: 

Kevin Noonan, Ph.D.
Reg. No. 35,303

Dated: January 13, 2005



Hon. Commissioner of
Patents and Trademarks

Atty: KEN/sh

Case No. 951408-GGG

Re: Applicant – **Kellogg *et al.***

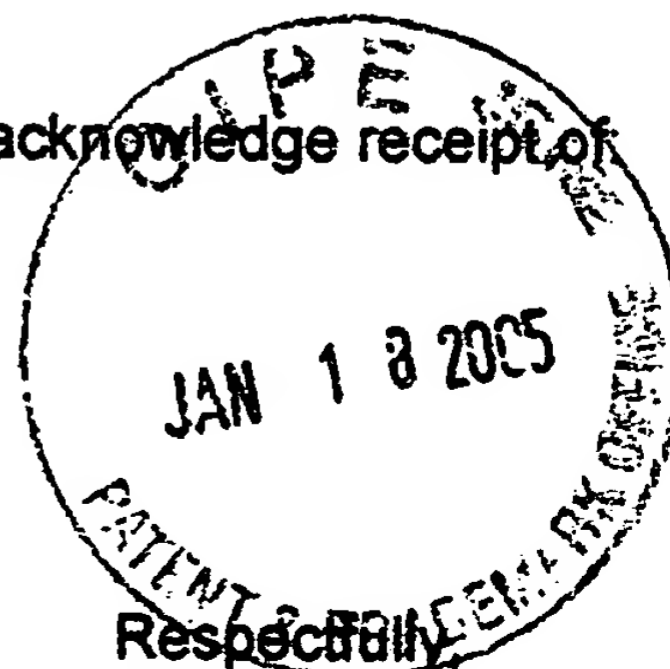
**Microfluidics Devices and Methods for High Throughput
Screening**

Please place the Patent Office receipt stamp hereon and mail to acknowledge receipt of

- ☒ Response to Office Action
- ☒ Petition for Extension of Time

Fee Enclosed
\$ 0.00

Date Mailed: January 13, 2005



Respectfully,
McDonnell Boehnen Hulbert & Berghoff
Attorney for Applicant